

## BIRD TRANSECTS ON THE NORTH ATLANTIC

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A TRIP across the temperate North Atlantic or along its coasts offers the opportunity for a type of bird watching known as a pelagic belt transect. Such bird counts serve to increase our knowledge of the spatial fluctuations of avian populations, the normal and exceptional distribution of species, the routes and shifts of range during seasonal periodic migrations, and localizations due to factors of weather, food supply, and current direction.

Four neritic and 2 oceanic belt transects, covering approximately a one-eighth mile swath from the stern or from the bridge deck of a steamer traveling generally at 14 knots, were made between latitudes 44°N and 59°N during August and November 1948. These observations illustrate especially the populations present and the complex of activities during the breeding, post-breeding, early autumnal migration and winter resident periods of the Nova Scotia-Newfoundland coasts, the northwestern and the southeastern Irish coasts, and the North Atlantic between Newfoundland and Ireland. Observations, never interrupted by bad weather, were made at dawn and dusk and through most of the day with time off for breakfast, lunch, tea, and dinner.

Several observations on the neritic transects (table 1) deserve comment. The birds seen in the American coastal zone were migrants, residents, and winter visitants. The coastal birds of Ireland were probably resident there or from Scotland. Fulmars, so evident on the Irish side, were near breeding grounds. Though typically oceanic, they enter the American cool north temperate neritic biochore, where they do not breed, particularly in winter at the Grand Banks, although this is not too evident in the number of individuals recorded in transect 4. One "blue" phase Fulmar was seen off Nova Scotia on November 26 in company with 2 dark phase birds and 15 light phases. Among the diving ducks the Barrow's Golden-eyes and the King Eiders were noteworthy. The location of observation, 2 miles off the point south of St. Johns, Newfoundland, may well be a wintering station for these birds. The absence of reports of diving ducks on the European side was because the ship avoided the bays and estuaries. Although gulls live almost exclusively in coastal areas in winter, a count of 10 species during the November transects is exceptional and probably not to be duplicated anywhere else in an area of comparable extent. With the Iceland and Glaucous Gulls was one gull which followed the ship for about 2 hours after leaving St. Johns and showed light gray wing markings and suggestions of "mirrors"—a Kumlien's Gull I am certain, having previously observed wintering birds so identified on the New

England coast. The observation of so many Brünnich's Murres off Cabot Strait on the northern end of the Grand Banks was a notable sight. Most of them,

TABLE 1  
North Atlantic Neritic Transects, 1948

	1	2	3	4
Common Loon— <i>Gavia immer</i> . . . . .				1
Greater Shearwater— <i>Puffinus gravis</i> . . . . .	3			
Atlantic Fulmar— <i>Fulmarus glacialis</i> . . . . .	1	45		18
Leach's Petrel— <i>Oceanodroma leucorhoa</i> . . . . .	39			
Gannet— <i>Morus bassanus</i> . . . . .	3	8	12	
European Cormorant— <i>Phalacrocorax carbo</i> . . . . .		1		
American Golden-Eye— <i>Bucephala clangula</i> . . . . .				70
Barrow's Golden-Eye— <i>Bucephala islandica</i> . . . . .				3
Old-Squaw— <i>Clangula hyemalis</i> . . . . .				8
Eider— <i>Somateria mollissima</i> . . . . .				3
King Eider— <i>Somateria spectabilis</i> . . . . .				4
White-Winged Scoter— <i>Melanitta deglandi</i> . . . . .				5
Surf Scoter— <i>Melanitta perspicillata</i> . . . . .				7
American Scoter— <i>Oidemia nigra</i> . . . . .				30
Oyster-Catcher— <i>Haematopus ostralegus</i> . . . . .		1		
Golden Plover— <i>Pluvialis dominica</i> . . . . .	200			
Ruddy Turnstone— <i>Arenaria interpres</i> . . . . .	28			
Northern Phalarope— <i>Lobipes lobatus</i> . . . . .	50			
Northern Skua— <i>Catharacta skua</i> . . . . .		3		
Glaucous Gull— <i>Larus hyperboreus</i> . . . . .				4
Iceland Gull— <i>Larus l. leucopterus</i> . . . . .				4
Kumlien's Gull— <i>Larus leucopterus kumlieni</i> . . . . .				1
Great Black-Backed Gull— <i>Larus marinus</i> . . . . .	7	4		23
Lesser Black-Backed Gull— <i>Larus fuscus</i> . . . . .			1	
Herring Gull— <i>Larus argentatus</i> . . . . .	2	4	23	66
Mew Gull— <i>Larus canus</i> . . . . .			19	
European Black-Headed Gull— <i>Larus ridibundus</i> . . . . .			3	
Little Gull— <i>Larus minutus</i> . . . . .			1	
Atlantic Kittiwake— <i>Rissa tridactyla</i> . . . . .			10	333
Arctic Tern— <i>Sterna paradisaea</i> . . . . .		1		
Atlantic Murre— <i>Uria aalge</i> . . . . .		1	2	6
Brünnich's Murre— <i>Uria lomvia</i> . . . . .				250
Dovekie— <i>Plautus alle</i> . . . . .				95
Black Guillemot— <i>Cepphus grylle</i> . . . . .			1	
Atlantic Puffin— <i>Fratercula arctica</i> . . . . .				20
Passerine Bird— <i>Dendroica striata?</i> . . . . .	7			
	1			

Transect 1. was from Halifax, N. S. to St. Johns, Newfoundland via the most direct route. August 29–30, 1948.

Transect 2. was the northwestern Irish coast from the Vidal Banks to Rathlin Islands. September 4, 1948.

Transect 3. was in the shipping lanes along the southeastern Irish coast in the Irish Sea. November 18, 1948.

Transect 4. was from St. Johns, Newfoundland to Halifax, N. S., the reverse of transect 1. November 25–26, 1948.

being glutted with food, just pattered over the water or "belly-bumped" the surface whenever they tried to fly. The absence of any Razor-billed Auks (*Alca torda*) or of Black Guillemots on the American side is unusual.

The oceanic transects (table 2), detailing the birds seen while traveling over

and back across almost the same 1800 mile route between Newfoundland and Ireland, merit interpretation. Although Atlantic Fulmars are distributed across the ocean in the fiftieth latitude, counts indicate that they prefer the colder waters of the Labrador Current. In the November transect 4 individuals of the birds observed were in the "blue" phase, 1 in the white phase, and upwards of 10% in the dark phase, these latter being all on the American side. The Greater Shearwaters seen in September were in groups of about 20 birds traveling toward the northeast. They were obviously making their journey toward the eastern side of the Atlantic, the western side being vacated by

TABLE 2  
North Atlantic Oceanic Transects, 1948

Atlantic Fulmar.....	384	41	64	52	2	28	60	2000	500
Sooty Shearwater— <i>Puffinus griseus</i> .....	2								
Audubon's Shearwater— <i>Puffinus lherminieri</i> .....								1	
Greater Shearwater.....	635	227	4			3			
Leach's Petrel.....	129								
Gannet.....	1				1				
Ruddy Turnstone.....			2						
Northern Skua.....		2			1	2	1		
Pomarine Jaeger— <i>Stercorarius pomarinus</i> .....	1								
Parasitic Jaeger— <i>Stercorarius parasiticus</i> .....	7								
Atlantic Kittiwake.....	1				51	54	20	7	60
Arctic Tern.....		6	210	1					
Atlantic Puffin.....							11	2	2
Date	Aug. 31	Sept. 1	Sept. 2	Sept. 3	Nov. 19	Nov. 20	Nov. 21	Nov. 22	Nov. 23
North Latitude.....	48° 59'	51° 37'	53° 53'	55° 09'	51° 28'	51° 40'	51° 48'	50° 46'	49° 25'
West Longitude.....	49° 14'	40° 45'	31° 13'	20° 52'	15° 04'	21° 18'	31° 22'	41° 44'	48° 02'
Temperature (F).....	56	57	52	56	51	51	52	48	42
Wind.....	NW	N	N	N	S	SW	E	NW	NW

October. The 3 individuals recorded on November 20 represent a late departure. The Audubon's Shearwater observed on November 22 at 50°46'N40'W in company with hundreds of Fulmars was unusual, since the closest breeding ground is Bermuda. The Northern Skuas, usually solitary, were twice seen in pairs. The single Pomarine Jaeger, easily distinguishable as to species by size alone, was observed in a close flock with 3 Parasitic Jaegers moving southeasterly. During the gale in November one Kittiwake, overturned by an extra gust of wind, flew upside down for five seconds before turning right side up. The Arctic Terns, sometimes calling as they flew along, were for the most part trending in an easterly direction. The Atlantic Puffins, easily overlooked at sea, were over 800 miles from land.

## SUMMARY

Observations of the birds of the temperate North Atlantic were made by belt transects during stated periods of a day and month over an arc of sea approximately one-eighth mile from the after-deck or the bridge deck of a ship traveling an average of 14 knots of speed over a known course. The records show 36 neritic species and recognizable subspecies and 13 oceanic species in the late summer and fall of 1948.

## THE WILSON ORNITHOLOGICAL CLUB LIBRARY

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## WILSON ORNITHOLOGICAL CLUB NEWS

The editors of *Audubon Magazine* have long believed that professional and amateur ornithologists should write popularized accounts of their researches and of conservation problems to arouse greater interest and understanding among people outside the biological field. To stimulate more popular ornithological writing, *Audubon Magazine* is now paying from \$15.00 to \$75.00 for all accepted articles ranging from 1,500 to 2,500 words, although shorter or longer material may be acceptable. Articles on bird ecology, migration, behavior and food habits, personal experiences in attracting birds, birds and other wildlife of a region, and local wildlife conservation projects are particularly desirable.

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## WILSON ORNITHOLOGICAL CLUB ANNUAL MEETING

The 31st Annual Meeting of the Wilson Ornithological Club will be held at Jackson's Mill, West Virginia, April 28-29, as announced in the December *Bulletin*.

If you are planning to attend, please write immediately to Maurice Brooks, West Virginia University, Morgantown, West Virginia, so that he can make arrangements for your accommodations. Please state the approximate time of your arrival and departure, and the names of the persons in your party.

Although Jackson's Mill provides a picturesque, rural setting for this meeting, its accommodations are excellent. The cottages are of substantial, dwelling-house type and every room is heated. This whole establishment is a detached part of the campus of West Virginia University. It is an ideal place for the children of those who wish to bring their families.